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Ear Corn Silage Pays

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EAR CORN SILAGE PAYS

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FARMERS who are caught with immature corn can still feed cattle by making ear corn silage out of their high-moisture corn. That's the principal conclusion we have reached from our 1945-46 cattle feeding tests.

Other conclusions are:

- Farmers who have silos and plan to feed cattle can spread their corn planting over a little longer season if necessary. By making ear corn silage, they still can be assured of harvesting a crop that will make good feed.
- Farmers who are a little short of good corn can defer corn feeding for 60 days. During this time give the cattle all the regular corn silage they will take and then full-feed shelled corn thereafter.
- Farmers can cut in half the usual amount of protein fed without greatly affecting the rate of gain. In our tests for the last 2 years, 2-year-old cattle which have been fed a limited protein ration have gained about as well as those which have received a full protein feed. The cattle which had received a limited protein feed lacked a little of the bloom and finish.

If you want to finish your older cattle to good or low choice grade (and not choice to prime) and if you have good alfalfa hay, then we believe 3/4 of a pound of linseed meal or its equivalent per head each day is enough.

The Experiment

These conclusions are based on a test of four different methods of feeding 820-pound good to choice feed steers. These cattle originated in Texas and cost $14.65 per hundredweight at Ames. Here are the ways we fed the lots: **Lots 1 and 2:** Ear corn silage for 113 days, the last 30 days full-fed shelled corn with regular corn silage. **Lots 3 and 4:** Full-fed shelled corn and regular corn silage for the entire 143 days. **Lot 5:** Fed all the regular corn silage they would take for 60 days and thereafter full-fed shelled corn. (Lots 1 to 5 were fed 1.5 pounds of linseed meal per day.) **Lot 6:** Handled the same as lots 3 and 4 except that they were fed only half as much protein.

Our Results

The results of the feeding test are shown in the table. The feeding margin on the two lots that were fed ear corn silage was not quite as great as on those which received shelled corn and regular corn silage throughout the whole period. But you will note that the average daily gain in all lots was about the same. The test proves that ear corn silage makes a good quality feed. It's a good way to save immature corn.

At the end of 113 days, the lots which had been receiving ear corn silage had not gained as rapidly as the lots which had been full-fed shelled corn. However, they outgained the other cattle during the last 30 days in which they received a full feed of shelled corn.

The lowest feed cost came on the lot that was handled on a deferred feeding basis. At the end of the feeding period, these cattle didn't have quite the finish and bloom shown by the lots that were full-fed shelled corn throughout the whole period. Yet, they sold within 30 cents of the latter. They showed the widest margin of any of the cattle in the test.

The feed prices used in figuring feed costs for the cattle are shown in the table (left). At these prices, and estimating yields, an acre of corn was worth $82.50 as regular corn silage, $73.50 as shelled corn and $72.00 as ear corn silage.

Making Ear Corn Silage

The corn used in the test was planted in late May and was well dented when cut on October 27 and 29. At that time the corn kernels contained 26 to 34 percent moisture and the cobs 38 to 44 percent. We added water, and the moisture content of the silage as fed ranged from 44 to 47 percent. We used temporary silos made of slat cribbing lined with regular silage paper.

To handle ear corn silage in this manner without spoilage, temporary silos should be of such a size that you can feed at least 3 inches of silage every day.

What the 1945-46 Cattle Feeding Experiment Showed

Lot Number	1 and 2	3 and 4	5	6
Feeding method	Ear corn silage 113 days Then shelled corn 30 days	Shelled corn Regular corn silage	60 days regular corn silage Then 83 days shelled corn	Shelled corn But one-half protein supplement
Shelled corn fed per steer (does not include silage), bu.	9.30	37.53	22.23	37.00
Corn silage fed per steer				
Regular, lbs.	356	2,260	4,085	2,229
Ear corn, lbs.	3,546	-------	-------	-------
Linseed meal fed per steer, lbs.	214.5	214.5	214.5	107.2
Alfalfa hay fed per steer, lbs.	460.5	143.0	143.0	143.0
Total acres of corn fed per steer[1]	.640	.639	.507	.618
Average daily gain, lbs.	2.01	2.01	1.96	1.96
Net cost[2] per 100 lbs. gain after crediting feed saved by hogs	$19.29	$18.01	$15.21	$17.12
Estimated value of steers per 100 pounds at Ames, May 17	$16.25	$16.40	$16.10	$16.10
Margin per steer over feed[3] costs, without 50 cent subsidy	$ 4.57	$ 9.92	$15.15	$ 9.20
Margin per steer over feed costs, with 50 cent subsidy	$10.07	$15.42	$20.65	$14.70

[1] Includes corn fed as regular corn silage, ear corn silage and shelled corn.

[2] Feed costs used in figuring net cost per 100 pounds: Ear corn silage $20 per ton; shelled corn $1.05 per bushel; corn silage $7.50 per ton; alfalfa hay $18 per ton; salt $20 per ton; mineral $60 per ton; and linseed oilmeal $56 per ton.

[3] This is based on the feed costs reported above.